Influence of -Radiation on Electrode Properties of Lithium Glass. Letter to the Editor

78332
SOV/89-8-3-17/32

figure; 2 tables; and 3 references, 2 Soviet, 1 U.S. The U.S. reference is: G. Perley, Analyt. Chem., 21, 394 (1949).

SUBMITTED: November 27, 1959

Card 4/4

5.5400 68922

AUTHORS: Leont'yev, V. M., Fedotov, N. A.

S/032/60/036/03/009/064
B010/B005

TITLE: Automatic High-ohmic Polarography With a Vibrating Platinum Electrode

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 36, Nr 3, pp 276-278 (USSR)

TEXT: An apparatus (Fig 1, Diagram) was developed for polarographic recording at high electric resistance, and a method of recording the I - φ curves (I = = current in μa, φ = polarizing potential in v) in time intervals in which no essential change of the electrode surface takes place. The electrode used is a platinum electrode vibrating at a frequency of 50 cycles and an amplitude of about 1 mm. The cathode- and anode space is connected by ground-in stopcocks offering an electric resistance up to 30,000 ohms. An ordinary tube rheostat was used to polarize the electrode. The intensity of the polarizing current is measured by an EPP-09 potentiometer, and the potential between electrode and comparison electrode by a second EPP-09 potentiometer. The latter has a special high-ohmic power supply. The drum on which the polarization curves are automatically recorded is directly connected with the axle of the rheocord, or with the RD-09 reversive motor of the potentiometer. The current intensity changes automatically with a synchronous motor. The vibration of the platinum electrode is caused by an electromagnetic device. Cathodic polarization curves (Fig 2) obtained on reduction of

1/2

68922

Automatic High-ohmic Polarography With a Vibrating Platinum Electrode

S/032/60/036/03/009/064
B010/B005

Fe^{3+} ions in 0.5 N hydrochloric acid solutions show that the vibrating electrode produces a marginal current 3 - 3.5 times higher than a resting electrode. It was shown that the polarization curves recorded with open or closed ground-in stopcocks are equal in spite of the fact that the cell resistance changes by a thousand times. There are 3 figures and 3 references, 2 of which are Soviet.

4

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova
(Scientific Research Institute of Physical Chemistry imeni L. Ya. Karpov)

[redacted]

[redacted] Ionization of oxygen at a "three phase boundary" [redacted]

[redacted]

[redacted]

[redacted] oxygen electrode, electrochemistry

[redacted] Ionization of O_2 on Pd, Pt, Ag and Ag [redacted]

[redacted]

in the meniscus is determined by the
the electrolyte film. The

MAZITOV, Yu.A.; FEDOTOV, N.A.; ALADZHALOVA, N.A.

Ionization of oxygen on a "three-phase boundary" in alkaline solutions. Part 2. Zhur. fiz. khim. 39 no. 1:218-222 Ja '65
(MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova, Moskva.
Submitted February 24, 1964.

ACCESSION NR: AT4026344 S/0000/62/000/000/0049/0056

AUTHOR: Fedotov, N. D.

TITLE: Transistor and ferrite-transistor elements

SOURCE: Konferentsiya po obrabotke informatsii, mashinnomu perevodu i avtomaticheskomu chteniyu teksta. Moscow, 1961. Vy*chislitel'naya i informatsionnaya tekhnika (Information processing and computer technology); sbornik materialov konfcrentsii. Moscow, 1962, 49-56

TOPIC TAGS: circuit design, logical design, transistor, ferrite transistor element, module

ABSTRACT: The author points out that the fundamental trend in the design of electronic machines of all types and sizes is the greater use of modules. This results in a simplification of the circuitry, facilitates the operation of the units and enhances reliability. This paper deals with the full complex of the logical and control elements for the units of electronic digital computers used for practical instruction purposes. The complex, which was developed in several specialized Soviet agencies, is designed in the form of modules, which perform a finite logical operation, and includes: 1) inverter "NOT", "NOT OR"; 2) a coincidence stage "AND" (valve); 3) a 3-input emitter repeater "OR"

Card 1/3

ACCESSION NR: AT4026344

(operation of logical addition); 4) an amplifier with transformer load; 5) a ferrite-transistor cell. The modules were developed for a sequential-action machine with a magnetic drum memory and permit the mounting of various logical and control circuits. For reasons of economy and circuitry convenience, modules 1, 2, 3 and 5 are produced in different versions, indicated in the article. An over-all view of the module may be seen in Figure 1 of the Enclosure. The design of the modules is such that they can be interconnected, avoiding the need for coupling over "output - input" channels, resulting in increased flexibility when setting up the circuitry. For this purpose, the location of the parts was selected with regard to the most probable deviation from the general rules governing element coupling. In general, potential couplings (with capacitance correction) were employed, although in the pulse-forming modules (inverter, amplifier) the additional possibility of passing the signals through the capacitance alone was provided. The modules were circuit-tested at frequencies of 100 - 200 kc. Orig. art. has: 8 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 16Apr64 ENCL: 01

SUB CODE: CP NO REF SOV: 000 OTHER: 000

Card 2/2

FEDOTOV, N.F., kand.tekhn.nauk

Calculation of mounted road-building equipment for dynamic loads. Stroi.i dor.mashinostr. 4 no.9:4-8 S '59.
(MIRA 12:11)

(Road machinery)

FEDOTOV, N. G.

"Investigation of the Peeling Process in Wheat Grinding." Thesis for Degree of Cand. Technical Sci. Sub 15 Jun 49, Moscow Technological Inst of Food Industry.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva. Jan-Dec 1949.

FEDOTOV, N. I.

FEDOTOV, N. I.: "The dynamics of immunobiological reactions in immunization with live brucellosis vaccine and some methods of differentiation vaccinated animals from those afflicted with brucellosis." Odessa State U imeni I. I. Mechnikov. Odessa, 1956
(Dissertation for the degree of Candidate of Biological Sciences.)

SO: Knizhnaya Letopis', No 36, 1956, Moscow.

FEDOTOV, N.I.; GEYZER, R.I.; GERASIMENKO, L.N.; LUK'YANTSEVA, V.Ya.; PERSIANOVA, I.P.

Relation between the degree of microflora permeation of canned food before sterilization and the results of the bacteriological analysis of the finished product. Konserv.i ovoshchesush. prom. 17 no.7:37-39 Jl '62. (MIRA 15:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.
(Food, Canned--Sterilization)
(Food--Bacteriology)

GEYZER, R.I.; FEDOTOV, N.I.; GERASIMENKO, L.N.; PERSIANOVA, I.P.

Various methods of comparative bacteriological analysis of canned food before sterilization. Kons.i ov.prom. 17 no.9: 31-33 S '62. (MIRA 15:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut konservnoy promyshlennosti.
(Food--Bacteriology) (Food, Canned--Sterilization)

FEDOTOV, N. I.

"Dross Smelting in the Dross Reverberatory Furnace and the History of Its Use in Ridder"
Tsvet. Met. 14, No 6, 1939

Report U-1506, 4 Oct. 1951.

FEDOTOV, N. I. Cand Tech Sci -- (diss) "Problems of the planning of mechanized sorter hills." Len, 1957. 18 pp (Min of Railways USSR. Len Order of Lenin Inst of Engineers of Railroad Transport im Academician V. N. Obraztsov), 100 copies (KL, 43-57, 89)

FEDOTOV,N.I.

AUTHOR: UMANSKIY,B.Z., FEDOTOV,N.I., and CHALIDZE,I.M., engineers. PA - 3096

TITLE: The Irkutsk Hydroelectric Station. (Irkutskaya gidroelektrostantsiya, Russian)

PERIODICAL: Elektrichestvo, 1957, Nr 5, pp 1 - 6 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: In December 1956 the water power station of Irkutsk, the first of Angara-Cascade, began operation. Thus is the foundation laid for the energy system of Irkutsk-Cheremkhovo-Bratsk. After the planned beginning of operation of the power station of Bratsk in 1960 the entire system will be united with that of Krasnoyarsk-Kuznetsk-Novosibirsk to become one of the largest in the world. The general characteristics of the Irkutsk station are described. One feature of the plant is the lack of a concrete spillway. The combined length of the earth dams amounts to 2,5 km. The function of the spillway is carried out by the canals which are placed in the power station building and which lead the water down. They let the high water through. In connection with the raising of the Baikal Sea water level about one meter, a 100 km long new stretch of railroad was built. It is electrified. The main electrical set up is described and the history of its development since 1951 given. Then follow descriptions of schemes for special requirements and the description of the basic equipment. The installation disposes of 8 turbines with

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Card 1/2

SAKOV, A.D., inzh.; UMANSKIY, B.Z., inzh.; FEDOTOV, N.I., inzh.

The Bratsk Hydroelectric Power Station. Elek. sta. 34 no.1:7-13 Ja '63. (MIRA 16:2)
(Bratsk Hydroelectric Power Station)

FEDOTOV, N.I., kand. tekhn. nauk

Calculating the number of receiving and departure tracks in section and classification stations. Trudy MIIZHT no.29:20-60 '62.

Calculating the time spent in the pushing back of cars in a classification yard. 111-127 (MIRA 16:10)

FEDOTOV, N.I., kand. tekhn. nauk (Novosibirsk); BYKADOROV, A.V., inzh. (Novosibirsk)

Increasing the speed in the breaking up of trains on classification humps. Zhel. dor. transp. 47 no.7:42-43 Jl '65. (MIRA 18:7)

FEDCTOV, N. M.

USSR/Pulleys
Stresses

Feb 1947

"Stresses in a Pulley," A. L. Rabinovich, N. M. Fedctov, 35 pp

"Inzhenernyy Sbornik" Vol III, No 2

Studies of a pulley subjected to a uniform radial load along the arc of contact between a cable and the rim, with concentrated loads applied at each end of the arc.

PA 16T64

FEDOTOV, N. M.; PUSTIL'NIK, I. M.

Sugar industry of the Tatar Economic Region. Sakh. prom. 36 no.10:5-8 O '62. (MIRA 15:10)

1. Tatarskiy sovet narodnogo khozyaystva.

(Tatar A.S.S.R.—Sugar industry)

FEDOTOV, N.M.; GALKINA, G.V.

New type of saccchariferous products from corn. Sakh. prom. 37 no.10:47-51 O '63. (MIRA 16:12)

1. Sredne-Volzhskiy sovet narodnogo khozyaystva (for Fedotov).
2. TSentral'nyy nauchno-issledovatel'skiy institut krakhmalo-patochnoy promyshlennosti (for Galkina).

PEDOTOV, N.N., inzh.

Some trends in the manufacturing of equipment for processing plastic materials. Stroi.mat. 10 no.8:7-8 Ag '64. (MIRA 17:12)

LYUBOVICH, Yu.O.; PUNSKIY, Ya.M., professor, retsenzent; KLIMENKO, K.I. kandidat ekonomicheskikh nauk; FEDOTOV, N.P., redaktor; ANDEL'MAN, S.Ya., redaktor; ALBUMOVA, Ye.S., tekhnicheskiy redaktor

[Economics of a machine building plant] Ekonomika mashinostroitel'nogo zavoda. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry 1948. 271 p. (MLRA 8:10)
(Machinery--Industry)

FEDOTOV, N.P.

Tasks facing the Scientific and Technical Society of Water Transportation. Mech. transp. 14 no.11:9-12 N '55. (MLRA 9:2)

1.Predsedatel' TSentral'nogo pravleniya nauchno-tekhnicheskogo obshchestva vodnogo transporta.
(Inland water transportation--Research)

37575. Iz istorii sibirskikh kurortov. Trudy Tomskogo Med. in-ta im. Molotova, T. XV, 1949, s. 3-18

FEDOTOV, N. P.

"Historical Outline of Medicine in Siberia in Connection With the History of Its Colonization (1585-1861)." Thesis for degree of Dr. Medical Sci. Sub 28, Apr 50, Acad. Med. Sci. USSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

FEDOTOV, N.P.

Treatment of wounds with aromatic emulsion of Coriandrum sativum ethereal oil. Sov.med. 19 no.1:70-71 Ja '55. (MLRA 8:4)

1. Iz propedevticheskoy khirurgicheskoy kliniki (dir. deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR prof. I.G.Rufanov) Lechebnogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta.

(WOUNDS AND INJURIES, therapy,
Coriandrum sativum, aromatic emulsion of ethereal oil)
(PLANTS,
Coriandrum sativum, aromatic emulsion of ethereal oil, ther. of wds.)
(OILS,
ethereal oils of Coriandrum sativum, ther. of wds.)

FEDOTOV, N.P., prof.

First steps in the work of the Tomsk branch of the All-Union Society of Medical Historians. Sov.zdrav. 19 no.5:91 '60. (MIRA 13:9)
(TOMSK—MEDICAL SOCIETIES)

FEDOTOV, N.P.

Subdiaphragmatic abscess. Sov.med. 24 no.1:121-122 Ja '60.
(MIRA 13:5)

1. Iz khirurgicheskogo otdela (zav. N.P. Fedotov) Ivanteyevskoy gorodskoy bol'nitsy (glavnyy vrach D.P. Yeliseyenkov) Moskovskoy oblasti.

(ABDOMEN--ABSCESS)

FEDOTOV, N.P. (Tomsk)

"Staff physician, I.V.Protasov" by V.T.Selezneva. Reviewed by N.P.Fedotov. Sov.zdrav. 21 no.12:80-81 '62. (MIRA 15:12)
(PROTASOV, IVAN VASIL'EVICH, 1768-)
(SELEZNEVA, V.T.)

FEDOTOV, N.P., prof. (Tomsk)

"All-Union scientific congresses of physicians and their importance in the practice of Soviet public health service" by M.I. Barsukova. Reviewed by N.P.Fedotov. Sov.zdrav. 22 no.4:89-91 '63. (MIRA 16:4)

(PUBLIC HEALTH) (MEDICINE--CONGRESSES)
(BARSUKOVA, M.I.)

FEDOROV, N.F., prof. (Tomsk)

The 75th anniversary of the Tomsk Medical Institute. Sov. zdrav. 22 no.9:77-77 '63. (MIRA 17:4)

FEDOTOV, N.P., prof. (Tomsk); TOKAREVA, O.G. (Semipalatinsk)

F.B. Gebler, prominent Siberian physician. Trudy Perm. gos. med. inst. 43:171-174 '63. (MIRA 17:6)

FEDOTOV, N.P., prof. (Tomsk)

Specific characteristics of public health service in Siberia in times of serfdom. Trudy Perm. gos. med. inst. 43:239-247 '63. (MIRA 17:6)

FEDOTOV, N.S.

"A Case of Ankylose Cervical Atlantal Joint of Horse."
SO: Veterinariya, Vol.20, No.3/4, March/April 1943, uncl.

FEDOTOV, N. S.
Ivanov Agricultural Institute
"Rubber bands to obtain slack in treatment with U7Ch field."
SO: Veterinariya 27(11), 1950, p. 48

FEDOTOV, N.S., Prof.
Ivanov Agricultural Institute
"The holder for fixation of electrodes UVCh on the withers of horse."
SO: Vet. 29 (9) 1952, p. 58

Card 1/1

Author : Fedotov, N. S.

Title : Therapy in cases of phlegmon of the tibia in horses

Periodical : Veterinariya, 6, 37-38, June 1954

Abstract : Thirty horses with phlegmon of the tibia responded rapidly to treatment by rest, local therapy, and maintenance of red blood cell count and hemoglobin at normal or above normal levels. The infected area was swabbed with tincture of iodine, infrared radiation applied, and the area covered with cotton gauze. Iodine weakens microorganisms that cause inflammation and edema, produces a mild irritation of the nerve endings thereby restoring the function of the nerves within the foci of infection.

Institution : Ivanovskiy Agricultural Institute

Submitted :

FEDOTOV, N.S.

Stand for hoofs in electrotherapeutics. Veterinariia 33 no. 10: 75-76 O '56. (MLRA 9:10)

1. Ivanovskiy sel'skokhozyaystvennyy institut.
(Electrotherapeutics) (Veterinary instruments and apparatus)

FEDOTOV, N. S.

Category: USSR / Diseases of Farm Animals. General Problems. V-1

Abs Jour: Ref Zhur-Biologiya, No 16, 1957, 72254

Author : Fedotov N. S., Rodinova Yu. P.
Inst : Not given
Title : The Pavlovski Mixture in the Treatment of Infected Wounds.

Orig Pub: Sb. Nauch. Tr. Ivanovsk. S. Kh. In-ta, 1956, 13, 55-58

Abstract: Pavlovski Mixture (Iodine 8-10 gm, ichthyol 6-8 gm and glycerine 100 gm) was administered to infected wounds in horses. This mixture had a favorable effect on the healing process of infected wounds; the treatment was particularly effective when the mixture was used in conjunction with good surgical procedures and with the use of autohemotherapy and radiation therapy.

Card : 1/1 -7-

FEDOTOV, N.S.

USSR / Pharmacology, Toxicology, Local Anesthetics U-5

Abs Jour : Referat Zh.-Biol., No 1, 1958, 3447

Author : Varnikov, V.V., Fedotov, N.S.

Inst : Not given

Title : The Effect of Brief Novocaine Block in Combination with an Autohemodressing on Experimental Wound Healing

Orig Pub : Sb. Nauch. tr. Ivanovsk. s.-kh. in-ta, 1956, vyp 13, 66-75

Abstract : Experiments were performed on rabbits. 1-15 cm from the edges of a wound, tissues were infiltrated with a warm 0.25% solution of novocaine in physiologic solution. Blood was withdrawn from the great auricular vein of the experimental rabbit and a pad was soaked in the withdrawn blood, and then applied to the wound. Novocaine block in combination with autohemodressings stimulated the healing of experimental wound.

Card 1/1

FEDOTOV, N.S.

Category: USSR / Diseases of Farm Animals. General Problems. V-1

Abs Jour: Ref Zhur-Biologiya, No 16, 1957, 72257

Author : Fedotov N.S.
Inst : Not given
Title : The Reinforcement of Electrodes in The Treatment of Diseases of Withers by the "UVCh" poles.

Orig Pub: Sb. Nauch. Tr. Ivanovsk. S.-Kh. In-ta, 1956 Vyp. 13, 139-140

Abstract: No abstract

Card : 1/1 -10-

Category: USSR / Diseases of Farm Animals and Diseases Caused by Helminths V-3

Abs Jour: Refer. Zhur-Biologiya, No 16, 1957, 72310

Author : Karpov A. A. Fedotov N. S.
Inst : Not given
Title : Onchocercosis in Horses and its Relation to the Withers.

Orig Pub: Sb. Nauch. Tr. Ivanovsk. S. Kh. In-ta, 1956, Vyp. 13, 148-149

Abstract: In 43 horses under investigation, onchocercosis was discovered in 55.8 percent. No diseases of withers were disclosed, which in the opinion of the authors is due to the good care and feeding of the animals with avoidance of overwork.

Card : 1/1

FEDOTOV, N. S.

Category: USSR / Diseases of Farm Animals. General Problems. V-1

Abs Jour: Ref Zhur-Biologiya, No 16, 1957, 72252

Author : Fedotov N. S.
Inst : Not given
Title : The Application of I. P. Pavlov's Theories to Veterinary Surgery

Orig Pub: Sb. Nauchn. Tr. Ivanovsk, S. Kh. In-ta 1956, Vyp. 15 , 127-138

Abstract: No abstract

Card : 1/1 -4-

FEDOTOV, N.S.

Category: USSR/ Diseases of Farm Animals. General Problems. V-1

Abs Jour: Ref Zhur-Biologiya, No 16, 1957, 72256

Author : Fedotov N. S.
Inst : Not given
Title : The Use of the Electrical Field of "UVCh" in the Treatment of Hoof Diseases in Horses.

Orig Pub: Sb. Nauch. Tr. Ivanovsk. S.-Kh. In-ta, 1956, Vyp. 15, 139-147

Abstract: Satisfactory results were obtained in treatment of horses with "UVCh" in purulent pododermatitis, phlegmon of the crown, stab wounds of the sole and frog, chronic pododermatitis, "chelnochnogo" block and the hoof joint, in a relatively short period of time. The different methods of treatment are described.

Card : 1/1

-9-

FEDOTOV, N.S., prof.

Suture of wounds after an operation for onchocerciasis of withers in horses. Sbor. nauch. trud. Ivan. sel'khoz. Inst. no.19: 265-270 '62. (MIRA 17:1)

1. Kafedra anatomii i fiziologii zhivotnykh (zav. - dotsent A.K. Petrov) Ivanovskogo sel'skokhozyaystvennogo instituta.

FEDOTOV, N.S.; GARMANOV, A.V.

Effect of early castration on the weight gain of calves of the black and white breed. Sbor. nauch. trud. Ivan. sel'khoz. Inst. no.19:271-273 '62. (MIRA 17:1)

1. Kafedra anatomii i fiziologii zhivotnykh (zav. - dotsent A.K. Petrov) Ivanovskogo sel'skokhozyaystvennogo instituta.

FEDOTOV, N. S. (Professor). KARPOV, A. A. and OVCHINNIKOV, M. S. (Veterinary doctors, Ivanovo Oblast' Veterinary Polyclinic).

"Periodic irrigation of the frontal sinus of cattle"...

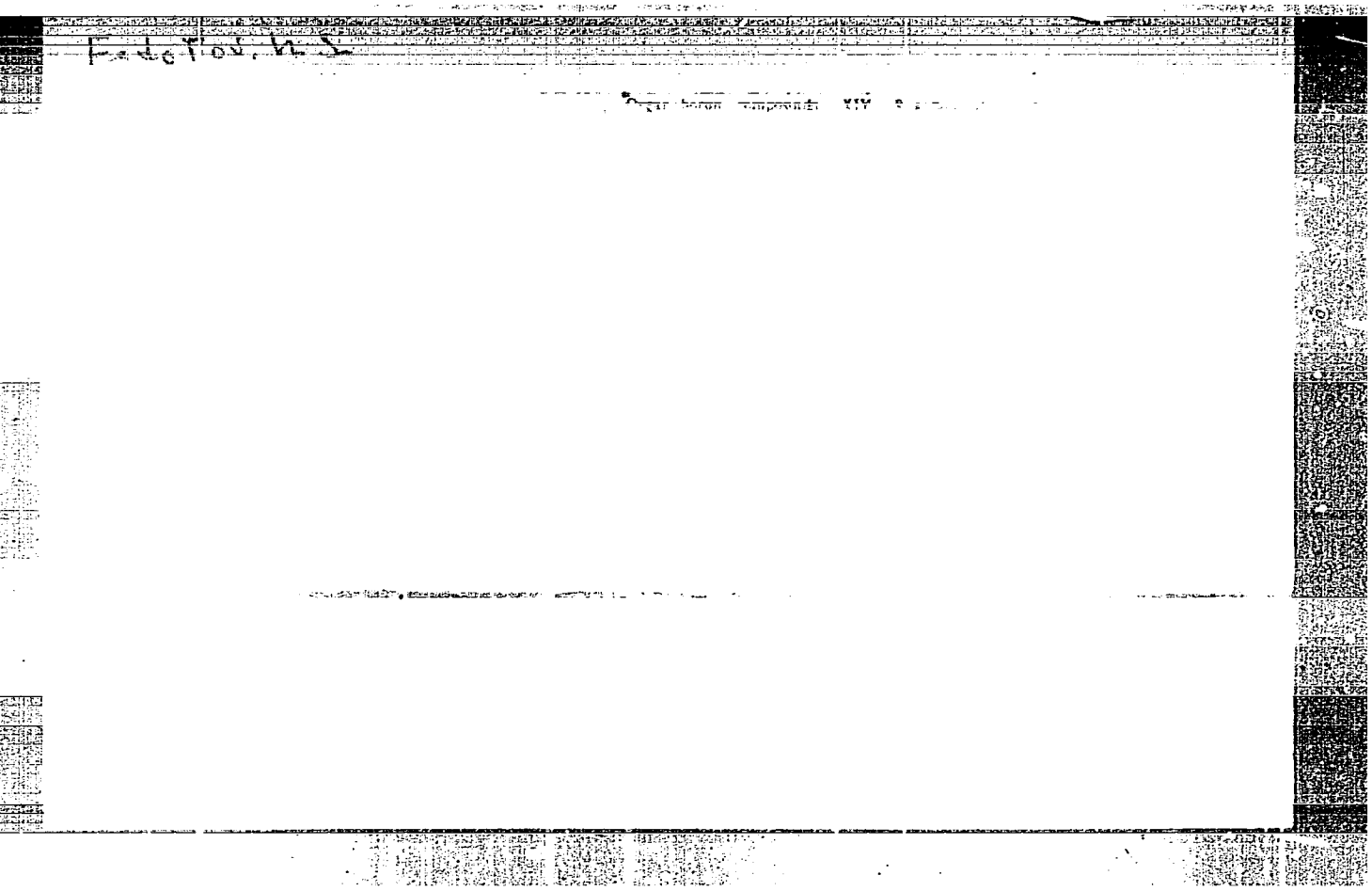
Veterinariya, vol. 39, no. 8, August 1962 pp. 53

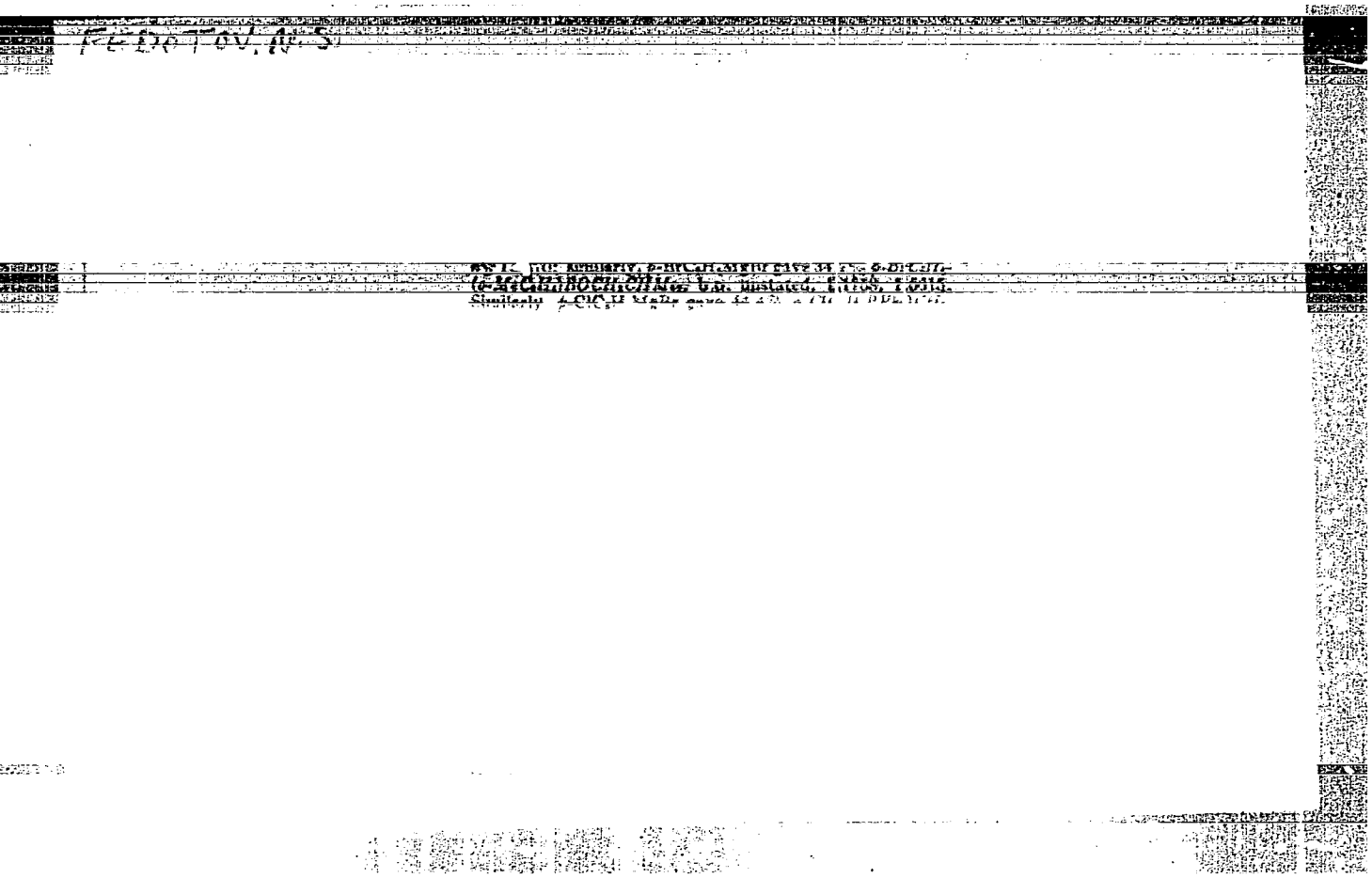
MIKHAYLOV, B.M.; FEDOTOV, N.S.

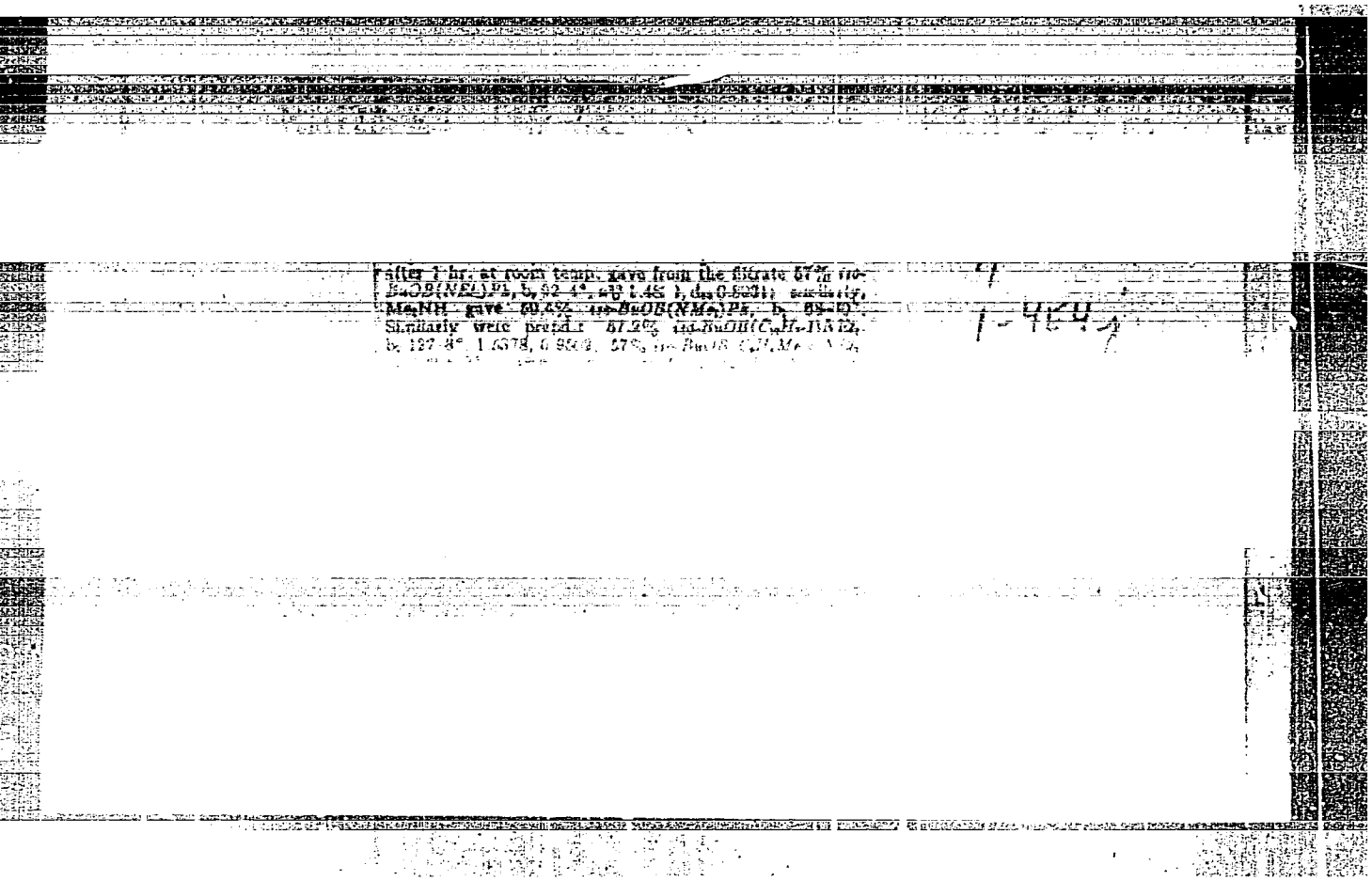
Boron organic compounds. Part 6. Effect of phosphorus pentachloride on diarylboric acid esters. Synthesis of diarylborochlorides. Izv.AN SSSR.Otd.khim.nauk no.3:375-376 Mr '56. (MLRA 9:8)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR.

(Phosphorus pentachloride) (Chlorides)







AUTHORS: Mikhaylov, B. M., Fedotov, N. S. SOV/62-58-7-10/26

TITLE: Organic Boron Compounds (Bororganicheskiye soyedineniya) Communication 24. The Effect of Acetic Acid and Acetic Anhydride on Boron Phenyl Dichloride and Boron Diphenyl Chloride (Soobshcheniye 24. Deystviye uksusnoy kisloty i uksusnogo angidrida na fenilbordikhlorid i difenilborkhlorid)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp 857 - 859 (USSR)

ABSTRACT: The chemical properties of boron aryl dichlorides have been little investigated up to now. Mikhaelis systematically investigated the ratio between the boron aryl dichlorides and water, with which they react under the formation of boron aryl acids (Ref 1). Furthermore he investigated the effect of alcohol and chlorine (Refs 2,3) on boron phenyl dichloride as well as the effect of sodium methylate and ethylate on the β-boron naphthyl dichloride. Still less information is available on the properties of the boron diaryl chlorides (Refs 5,6). In the present paper the formation of boron phenylpyro acetic anhydride by the action of acetic acid on boron phenyl dichloride is discussed. The authors found that boron diphenyl chloride reacts with acetic anhydride, with

Card 1/2

Organic Boron Compounds. Communication 24: The Effect of Acetic Acid and Acetic Anhydride on Boron Phenyl Dichloride and Boron Diphenyl Chloride

SOV/62-58-7-10/26

boron diphenyl anhydride being formed. Under the influence of acetic acid on boron diphenyl chloride first boron diphenyl anhydride is formed which later on converts into boron phenyl-pyro acetic anhydride under the action of acetic acid. Boron p-chlorophenyl dichloride reacts with acetic acid (under the simultaneous formation of chlorophenyl pyroacetic anhydride). There are 6 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

SUBMITTED: December 28, 1956

Card 2/2

SOV/62-58-7-16/26

AUTHORS: Mikhaylov, B. M., Blokhina, A. N., Fedotov, N. S.

TITLE: The Production of Bromides of Organo-Boron Compounds From Esters of Organo-Boric Acids and Organo-Boron Chlorides (Polucheniye bromidov bororganicheskikh soyedineniy iz efirov bororganicheskikh kislot i bororganicheskikh khloridov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp 891-895 (USSR)

ABSTRACT: By the action of phosphorus pentachloride on the esters of organoboron compounds the chlorides of organoboron compounds of the type R_2BCl (Refs 1, 2), $RBCl_2$ (Refs 3, 4) and RBCl(OR) (Refs 2, 5) can easily be produced. The problem arose whether the bromides of organobromine compounds may be synthesized in a similar way. In the present paper the authors describe the production of boron diphenyl bromide, and of the isoamyl ester of phenyl bromoboric acid. By the action of phosphorus pentabromide on the isobutyl ester of diphenyl boric acid the boron diphenyl bromide and isobutyl ester of phenyl bromoboric acid are formed. By the action of hydrogen

Card 1/2

The Production of Bromides of Organo-Boron Compounds From Esters of Organo-Boric Acids and Organo-Boron Chlorides

SOV/32-58-7-16/26

bromide on boron diphenyl chloride or boron phenyl dichloride the boron diphenyl bromide and boron phenyl dibromide are formed correspondingly. There are 7 references, 5 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: February 6, 1958

Card 2/2

5(3)
AUTHORS: Mikhaylov, B. M., Fedotov, N. S. SOV/62-59-8-24/42

TITLE: Complex Compounds of Diphenyl Boron Chloride With Primary Amines and N-Substituted Derivatives of Diphenylamino Boron

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 8, pp 1482-1483 (USSR)

ABSTRACT: The present paper is a continuation of investigations made concerning the reaction of diarylborochloride and amines (Ref 1). The primary amines form, in contrast with the secondary amines, complexes with the above compounds where two amino molecules are to be found for each chloride molecule:

$(C_6H_5)_2BCl + 2RNH_2 = (R_6H_5)_2BCl.2RNH_2$

R being CH_3-, C_2H_5-, i-C_4H_9

So far, these compounds had been unknown. Similar compounds (alkylboron difluorides with two alcohol molecules) had been obtained by Mikhaylov and Shchegoleva (Ref 3). The structure of the molecules obtained here is considered either a hydrogen-bond structure (II) or heteropolar (III). The saline character and the low volatility suggest (III). When the temperature is raised

Card 1/2

Complex Compounds of Diphenyl Boron Chloride With Primary Amines and N-Substituted Derivatives of Diphenylamino Boron

SOV/62-59-8-24/42

above the melting point, the molecule decomposes and forms N-substituted diphenylamino boron (IV) and alkylamino chloride. Compound (I)(R = CH_3) changes when left undisturbed into the crystalline dimer which is probably of a cyclic structure (V). The existence of the complexes investigated and their thermal transformation throw some light upon the reaction mechanism of the substitution for the chlorine atoms at the amino group in boron-organic halogenides. The experimental part describes in detail the individual transformation reactions. There are 3 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: December 17, 1958

Card 2/2

5 (3)

AUTHORS: Mikhaylov, B. M., Fedotov, N. S. SOV/79-29-7-30/83

TITLE: Organoboron Compounds (Bororganicheskiye soyedineniya). XXXVI. Asymmetrical Diaryl Boric Acids and Their Derivatives (XXXVI. Nesimmetrichnyye diarilbornyye kisloty i ikh proizvodnyye)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2244 - 2248 (USSR)

ABSTRACT: One part of the diaryl boric acids form complex compounds with water of the type $Ar_2B(OH)\leftarrow OH_2$ (A), the other part contains no water, it has, however, the effect of Lewis acids in aqueous solutions, i.e. with bases they form the same salts (B) as the acids of the hydrate form (A). The authors continued their investigation of the complex formation in the series of aromatic boron compounds and synthesized some unsymmetrical diaryl boric acids, their esters, and acid chlorides, and investigated their capability of complex formation. The isobutyl esters of unsymmetrical diaryl boric acids (V) were synthesized by the reaction of the corresponding Grignard reagents with the isobutyl

Card 1/3

ester of phenyl boric acid (Scheme 1). In this case the isobutyl esters of phenyl-p-tolyl-, phenyl-p-bromophenyl-, and phenyl-α-naphthyl boric acid were obtained. These esters form stable complex compounds (C) with ammonia. The isobutyl esters of phenyl-p-tolyl- and phenyl-α-naphthyl boric acid were transformed with PCl_5 into the chlorides, phenyl-p-tolyl boron chloride and phenyl-α-naphthyl boron chloride (Scheme 2). The diaryl boron chlorides form the following solid complex compounds with dioxane (1:1): phenyl-p-tolyl boron chloride-, phenyl-α-naphthyl boron chloride- as well as diphenyl boron chloride and di-α-naphthyl boron chloride dioxanate (Ref 4) (Scheme 3), which were synthesized already earlier. In the hydrolysis of the phenyl-α-naphthyl- and phenyl-p-tolyl boron chloride, the phenyl-α-naphthyl- and phenyl-p-tolyl boric acid are formed which contain no complex water (Scheme 4). The latter acid is extremely unstable and decomposes according to scheme 5. There are 5 Soviet references.

Organoboron Compounds. XXXVI. Asymmetrical Diaryl Boric Acids and Their Derivatives

SOV/79-29-7-30/83

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: June 18, 1958

Card 3/3

5(2,3) SOV/20-127-5-25/58

AUTHORS: Mikhaylov, B. M., Kozminskaya, T. K., Fedotov, N. S., Dorokhov, V. A.

TITLE: Esters of Organothioboric Acids and Some of Their Transformations

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1023-1026 (USSR)

ABSTRACT: Since the esters of dialkyl thioboric acids (Refs 1, 2) proved to be very reactive compounds which may be used for the synthesis of various organoboric compounds the authors were interested in the production of the acids mentioned in the title and in their behaviour. The known aliphatic monosubstituted and the aromatic substituted esters of the thioboric acids are enumerated (Refs 3-5) and their production methods are mentioned. The authors found that the n-butyl esters of the alkyl thioboric acids (Ref 1) are produced in good yields in the boiling of the alkyl boron dichlorides and -dibromides with n-butyl mercaptan (see Scheme). By the same method n-butyl ester of the phenyl thioboric acid (II) was produced. Diphenyl boron chloride and di-α-naphthyl-boron chloride react in similar way with n-butyl mercaptan and form n-butyl esters of diphenyl thioboric acid (III. Ar = C_6H_5) and of di-α-naphthyl thioboric acid

Card 1/3

(III. Ar = α-$C_{10}H_7$). All esters produced are highly reactive. This permits their transformation into other organoboric compounds. By the action of ethylene diamine the mentioned esters are smoothly transformed into cyclic compounds, under the separation of n-butyl-mercaptan i.e. into 2-alkyl-2-boron-1,3-diazolidine (IV). In the action of ammonia on the esters of alkyl- and aryl thioboric acids at low temperatures the two latter were transformed into the corresponding boron trialkyl- and boron triaryl borazoles (V). The reaction between the ester and the phenyl thioboric acid and diethyl amine takes place in one direction under the formation of phenyl-di(diethyl amino)boron with a yield of 80%, whereas the amino compound (VI) is produced from the phenyl boron dichloride only in a 14% yield (Ref 8). Under the action of n-butyl ester of diphenyl thioboric acid is transformed into diphenyl butyl amino boron (VII) in the action of n-butyl amine in a 80% yield. The esters of

Esters of Organothioboric Acids and Some of Their Transformations

SOV/20-127-5-25/58

diphenyl thioboric and di-α-naphthyl-thioboric acid react with ammo ia at low temperatures. In this connection diphenyl amino boro . (VIII. Ar = C_6H_5 see Scheme) are formed or di-α-naphthyl-amin -boron (VIII. Ar = α-$C_{10}H_7$). There are 9 references, 5 of which are Soviet.

ASSOCIA. .JN: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: April 20, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: April 18, 1959

Card 3/3

87110

S/062/60/000/009/006/021
B023/B064

5.3700 2209, 1273, 1236

AUTHORS: Mikhaylov, B. M. and Fedotov, N. S.

TITLE: Organoboron Compounds. Communication 58. The Effect of Amines and Ammonia Upon Diaryl Boron Chlorides

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 9, pp. 1590-1594

TEXT: The authors investigated organoboron compounds and the effect of amines and ammonia upon diaryl boron chlorides. Aniline, the primary aromatic amine, reacts with diphenyl boron chloride in the same manner as secondary alophatic amines, and forms diphenyl phenyl amine boron at room temperature. The aromatic radical bound to boron exerts also a strong influence upon the reactivity of diaryl boron chlorides. Di-α-naphthyl boron chloride was found to be converted into corresponding N-substituted derivatives of di-α-naphthyl amine boron both under the action of primary aliphatic and aromatic amines, and secondary aliphatic amines at room temperature. Thus, the following compounds were obtained: di-α-naphthyl methyl amine boron, di-α-naphthyl isobutyl amine boron, di-α-naphthyl

Card 1/3

87120

Organoboron Compounds. Communication 58. The Effect of Amines and Ammonia Upon Diaryl Boron Chlorides

S/062/60/000/009/006/021
B023/B064

phenyl amine boron, and di-α-naphthyl diethyl amine boron. The behavior of diphenyl boron chloride and di-α-naphthyl boron chloride toward ammonia differs completely. When bubbling ammonia at low temperature through a benzene solution of di-α-naphthyl boron chloride, di-α-naphthyl amine boron forms readily. Diphenyl boron chloride forms a stable complex with ammonia (Ref. 2). A complete analysis showed that it is the diammoniate of diphenyl boron chloride, which probably has a heteropolar structure. The ammonium salt of diphenyl borenium acid: $[(C_6H_5)_2B(OH)_2]^-NH_4^+$ forms during the hydrolysis of this complex. N-substituted derivatives of diphenyl amine boron and of di-α-naphthyl amine boron exhibit a different stability to water. The stability depends both on the nature of the aromatic radicals bound to the boron atom and on the character of the radicals in the amine group. Diphenyl phenyl amine boron and di-α-naphthyl phenyl amine boron are easily hydrolyzed by atmospheric humidity, while di-α-naphthyl diethyl amine boron does not even change when heated with water at 100°C for 1 h. Di-α-naphthyl amine boron, di-α-naphthyl methyl amine boron, and di-α-naphthyl isobutyl amine boron do not change under the action of water at

Card 2/3

87120

Organoboron Compounds. Communication 58. The Effect of Amines and Ammonia Upon Diaryl Boron Chlorides

S/062/60/000/009/006/021
B023/B064

room temperature for one hour; they are, however, hydrolized by water at 100°C under the formation of the respective amine and the di-α-naphthyl boric acid. The latter decomposes into naphthalene and α-naphthyl boric acid. The authors think that the compounds are more stable to water than hexamethyl borazole which is hydrolized with water at room temperature. Thus, the authors conclude that the relative stability of borazole and its derivatives to hydrolizing agents is not only characteristic of cyclic compounds with boron - nitrogen bonds, but also of some nitrogen compounds of boron with an open chain. There are 6 references: 4 Soviet and 2 German.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: March 31, 1959

Card 3/3

FEDOTOV, N. S.

Cand Chem Sci - (diss) "Synthesis and properties of diarylborochlorides." Moscow, 1961. 11 pp; (Moscow Order of Lenin and Order of Labor Red Banner State Univ imeni M. V. Lomonosov); 120 copies; price not given; list of author's works on p 11 (11 entries); (KL, 5-61 sup, 177)

MIKHAYLOV, B.M.; FEDOTOV, N.S.

Structure of complex compounds of diphenyl boron chlorides with primary amines. Izv.AN SSSR.Otd.khim.nauk no.10:1913 O '61. (MIRA 14:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Boron compounds) (Amines)

33927
S/079/62/032/001/003/016
D226/D302

5.2410

AUTHORS: Mikhaylov, B. M., and Fedotov, N.S.

TITLE: Organic compounds of boron. LXXXVIII Reactions of diarylborochlorides with aromatic amines and heterocyclic compounds

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 1, 1962, 93 - 95

TEXT: The present work is a continuation of an earlier investigation by the authors (Ref. 1: Izv. AN SSSR, OKhN, 1960, 1590) in which they had shown that aniline readily reacts with both diphenyl and di-α-naphthyl borochlorides. In this paper reactions of other aromatic amines with arylborochlorides are described. The authors found that both α-naphthylamine and diphenylamine readily react with arylborochlorides according to the following reactions:

$$Ar_2BCl + 2H_2NC_{10}H_7 - \alpha \rightarrow Ar_2BNHC_{10}H_7\text{-}\alpha + H_2NC_{10}H_7 \cdot HCl$$

and $$Ar_2BCl + 2HN(C_6H_5)_2 \rightarrow Ar_2BN(C_6H_5)_2 + HN(C_6H_5)_2 \cdot HCl$$

Card (1/3)

Organic compounds of boron ...

where Ar = C_6H_5, α - $C_{10}H_7$.

Diaryl-α-naphtylamino borons resulting from the first reaction above are colorless compounds unstable in the presence of air. The products of the second reaction viz., di-α-naphthyl diphenylamino boron and diphenyl-diphenylamino-boron are both readily hydrolyzed on standing in air, in contrast to the di-α-naphthyl-diethylamino boron previously synthesized by the authors. It was shown further that some amines e.g. β -β' dinaphthylamine and triphenylamines do not react at all with diarylborochlorides, presumably because of steric hindrance. The ease with which diarylborochlorides form complexes with amines shows them to be stronger Lewis acids than the corresponding trialkylborons. Thus diphenylborochloride forms an unstable complex with α, α'-lutidine whilst trimethyl boron does not. Similarly diphenyl- and dinaphtyl-borons give rise to unstable complexes with quinoline. The authors give details of the methods of preparing the various complexes, state the yields obtained and the composition of the products. There are 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publi-

Card 2/3

Organic compounds of boron ...

cation reads as follows: H. Brown, H. Schlesinger and S. Cordon, J. Am. Chem. Soc. 64, 325, 1942.

SUBMITTED: February 18, 1961

Card 3/3

S/062/62/000/006/003/008
B117/B101

AUTHORS: Mikhaylov, B. M., and Fedotov, N. S.

TITLE: Organoboron compounds. Communication 100. Reactions of esters of thioboric and organothioboric acids with carbonyl compounds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 6, 1962, 999 - 1001

TEXT: Orthoboric acid esters were shown to react with aldehydes and ketones with formation of thioacetals, thioketals, and boric oxide; di-n-butyl thioketal of acetone (90%) was got besides boric oxide, from a benzene solution of acetone and n-butyl thioborate heated in a water bath (3 hr). Under the same conditions, ethyl thioborate and acetophenone yielded boric oxide and acetophenone diethyl thioketal (82.1%). Ethyl thioborate reacted with benzaldehyde in benzene solution, liberating heat and producing boric oxide and benzaldehyde diethyl thioacetal (91.1%). The reaction of n-butyl phenyl thioborate with acetone yielded phenyl boric anhydride and di-n-butyl thioketal of acetone (86%). The reaction of n-butyl-di-α-naphthyl thio-

Card 1/2

Organoboron compounds. ...

borate with acetone yielded di-α-naphthyl boric anhydride (78.5%), acetone thioketal (85%), and small amounts of α-naphthyl boric anhydride and naphthalene. The reaction of acetone with diphenyl thioborate gave phenyl boric anhydride (33%) and benzene besides diphenyl boric anhydride (65.4%). The yield of acetone thioketal was only 66.5%. Acetone supplies the hydrogen required for the formation of aromatic hydrocarbons.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: January 11, 1962

Card 2/2

MIKHAYLOV, B.M.; FEDOTOV, N.S.; SHCHEGOLEVA, T.A.; SHELUDYAKOV, V.D.

Cation complexes of boron. Dokl.AN SSSR 145 no.2:340-343 Jl '62. (MIRA 15:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR. Predstavleno akademikom B.A.Kazanskim.
(Boron compounds) (Metal ions)

L 33262-66 EWT(m)/T RM/WW/JW/JWD

ACC NR: AR6016188 SOURCE CODE: UR/0058/65/000/011/D021/D021

AUTHOR: Nikitina, A. N.; Petukhov, V. A.; Galkin, A. F.; Fedotov, N. S.; Bubnov, Yu. N.

TITLE: Absorption spectra of boro-organic compounds in the vacuum-ultraviolet region

SOURCE: Ref. zh. Fizika, Abs. 11D156

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 369-383

TOPIC TAGS: uv spectrum, absorption spectrum, boron compound, electron spectrum, line intensity, Raman spectrum

ABSTRACT: The authors investigated the electronic absorption spectra of solutions of boro-organic compounds of aromatic and non-aromatic series, and also substituted borazols in the region ~1700 - 3000 Å. The integral intensities of the lines (of the benzene ring) were measured in the Raman spectra of certain boro-organic compounds of the aromatic series. The strong interaction between the boron atom and the aromatic radicals was observed, which was especially strongly manifest in short-wave electron transitions. With increasing interaction the intensity of the corresponding bands decreases. The changes of the spectra observed in the borazols are analogous to the changes of the spectra of the corresponding benzene substitutes. [Translation of abstract]

SUB CODE: 20, 07

Card 1/1

MIRONOV, V.F.; FEDOTOV, N.S.

New method for phenyltrichloro and phenyltribromogermane preparation. Zhur. ob. khim. 34 no.12:4122 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii AN SSSR.

MIKHAYLOV, B.M.; FEDOTOV, N.S.

Mechanism of nucleophilic substitution at the boron atom in organoboron compounds. Dokl. AN SSSR 154 no.5:1128-1131 F'64. (MIRA 17:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR. Predstavleno akademikom B.A. Kazanskim.

L 19367-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5016195 UR/0079/64/034/012/4122/4122

AUTHOR: Mironov, V. F.; Fedotov, N. S.

TITLE: New method of producing phenyltrichloro- and phenyltribromogermane

SOURCE: Zhurnal obshchey khimii, v. 34, no. 12, 1964, 4122

TOPIC TAGS: organogermanium compound, chlorinated organic compound, brominated organic compound

Abstract: Boiling of $GeCl_4$ or $GeBr_4$ with iodobenzene in the presence of copper powder was found to lead to a high yield (approximately 80%) of the corresponding phenyltrihalogermane. Replacement of copper by other metals (Zn, Fe, Na) or replacement of iodobenzene by bromobenzene, as well as replacement of $GeCl_4$ by CH_3GeCl_3 did not succeed. The authors claim that the new way of synthesizing $C_6H_5GeCl_3$ and $C_6H_5GeBr_3$ is the best of those now known. Orig. art. has 4 formulas.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 20Jul64 ENCL: 00 SUB CODE: OS, GC
NO REF SOV: 001 OTHER: 011 JPRS

Card 1/1

NIKITINA, A.N.; PETUKHOV, V.A.; GALKIN, A.F.; FEDOTOV, N.S.; BUBNOV, Yu.N.; ARONOVICH, P.M.

Absorption spectra of organoboron compounds in the vacuum ultraviolet region. Opt. i spektr. 16 no.6:976-983 Je '64. (MIRA 17:9)

FEDOTOV N.V.

p. 2

SOV/77-4-2-15/18

23(4) 23 (5)

AUTHOR: Lyalikov, K.S.

TITLE: Successes of Soviet Electrophotography (Uspekhi sovetskoy elektrofotografii) A Scientific and Technical Conference on Questions of Electrography (Nauchno-tekhnicheskaya konferentsiya po voprosam elektrografii)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 149-152 (USSR)

ABSTRACT: This is an account of a scientific and technical conference on electrography, the first to be held in the Soviet Union and evidently in the world. It was organised in Vil'nyus on December 16-19, 1958 by the Soviet narodnogo khozyaystva Litovskoy SSR (Council for National Economy of the Lithuanian SSR), the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta ministrov Litovskoy SSR (State Scientific and Technical Committee of the Council of Ministers of the Lithuanian SSR) and the Nauchno-issledovatel'skiy institut elektrografii (Scientific Research Institute of Electrography). The conference, attended by over 300 scientific workers, was opened by the Deputy Chairman of the Council for National Economy of the Lithuanian SSR P.A. Kul'vets, after which the director of the Institute for Electrography, I.I.Zhilevich, reviewed the state and prospects for development of electrography in the USSR. He stated that research in this field should be carried out along the following lines: a) a search for new photo-active materials with high dark resitance; b) physical research into the internal photoeffect; c) development of photosemiconductor layers; d) development of the theory of the electrophotographic process. K.S. Lyalikov (speaking also for O.G. Popova) gave a report in which he suggested determining the light sensitivity of electrophotographic layers in GOST units. N.Z. Plavina (speaking also for I.I.Zhilevich, L.I.Eyun'ko, M.M.Markevich, P.I. Kalinauskens and O.M. Suveyzdis) reported on some research on the sensitization of a semiconductor in electrophotographic layers. V.M. [illegible] gave a report on highly sensitive electrophotographic layers and an electrophotocopying device, and reviewed the formation process of the latent electrophotographic image on the basis of the zonal theory. He also described the design of an electrosensitometer for determining sensitivity by the relaxation period of a charge on the surface of the layer, and the circuit of an electrophotographic copying device. Anfilov finished describing the latter and then spoke on the mechanics and kinetics of the development of the latent electrophotographic image in liquid developers.

Card 3/10

Successes of Soviet Electrophotography: A Scientific and Technical Conference on Questions of Electrography

K.N. Vinogradov described some of the features of the cascade and liquid methods of electrophotographic development. Yu.Ye. Karpeshko devoted his report to the criterion of light sensitivity of the elctrophotographic process. After the reports, a discussion took place on methods of determining the light sensitivity of electrophotographic layers. A.N. Chernyshev spoke on the prospects of developing polygraphic processes using electric and magnetic forces. O.V. Gromov (speaking also for I.I. Zhilevich, A.A. Sukhiy, V.A. Gordeyeva, A.S. Pausha and Yu. I. Kevalaytis) reported on the development of elctrophotographic reproducing equipment. A.S. Pauzha (speaking also for I.I. Zhilevich, A.F. Borisovich, N.M. Gal'vidiks and M.I.Rau'kauskas) reported on the use of electrographic methods in recording oscillographs and other recording instruments.

V.P. Yurchenko (speaking also for L.N.Balin) spoke on the possibility of electrophotographically recording images from electron-beam tubes. L.S. Korol' (speaking also for N.K. Markevich, T.I. Kozlovskaya, B.I. Kalinauskene, M.K. Maynens, I.I. Zhilevich and E.A. Montrimas) gave a detailed description of laboratory and machine methods of producing photosemiconductor papers (zinc oxide was used). A.A. Sukhiy (speaking also for I.I. Zhilevich, O.V. Gromov, V.A. Gordeyev , N.V. Fedotov and T.K. Ger) described a laboratory and industrial machine for producing photosemiconductor papers. T.A. Shishkina (speaking also for Ya.A. Cksman) reported on a method of examining electrophotographic materials using an a/c bridge. S.I. Khotyanovich (speaking also for A.I. Gikens and I.S. Zhilevkena) spoke on developing materials for electrophotography and ferromagnitography, including developers giving a "reverse" image. B.I. Tikhonov reviewed methods of measuring the electrostatic potentials of electrophotographic layers, stressing that the oscillating electrode should not be placed above a layer with varying potential as this causes self-discharge. E.V. Krukovskis (speaking also for R.G.Gorevoy, A.V.Osipov and Ye. S. Kheyfets) spoke on the practice of producing velveteen papers in an electrostatic field, and showed samples produced by the Grigishskaya paper factory. Ye.L. Nemirovskiy then gave a historical review of the development of electrographic methods in which he paid tribute to the work of the Scientific Research Institute of Electrography in Vil'nyus and the Institut poligraficheskogo mashinostroyeniya (Moskva)-(Polygraphic Machine-Building Institute (Moscow)). Debates were then held

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041273(

on methods of measuring the potential of charged electrophotographic layers, the vibration pick-up most-used was shown in B.I. Tikhonov's report to be not always accurate. S.G.Grenishin stated that the bad influence of the oscillating electrode can be eliminated if the electrode probe above its surface is fixed and the pick-up is connected to it by a shielded cable. In the debate on Ye.L. Nemirovskiy's report it was stated that the research of Academicians A.N. Terenin and Ye.K. Putseyko should be considered as the basis of all work on electrophotographic papers with ZnO, as they were the first to show the possibility of optical sensitization of the internal photoeffect in ZnO. M.M.Gol'vidis then gave a report on the depositing of charges by a corona discharge. A.I. Kaminskas and A.P. Yagulis reviewed some of the results of the use of electrographic methods in radiography. L.I. Nyun'ko (speaking also for I.I. Zhilevich, I.Z. Plavin, Yu.K. Vishchakas and Yu.A.Zibuts) reported on relaxation processes in semiconductor layers, using a vibration electrometer. Yu.K.Vishakas gave a report on research on some physical properties of the polycrystalline layers of selenious cadmium. K.P. Mikalkyavichyus spoke on some of the photoelectric properties of Sb_2S_3 and Sb_2Se_3: the absorption maximum of the latter is about 900 mμ. S.M. Heyman reported on methods of obtaining selenium light-sensitive layers, including sublimation and thermal treatment; it was also found that the sensitivity of the layers increased after storage for 1.5 to 2 months at room temperature. P.M. Podvigalkin (speaking also for S.G.Grenishin) spoke on research into the electrical properties of electrophotographic layers of amorphous selenium and powdered zinc oxide. N.K. Shiktorov (speaking also for A.S. Tauraytis) discussed the production of selenium layers and some of their properties. Finally the following reports on ferromagnetography were delivered; 1) B.Ya. Kaznacheyev, V.M.Zhogina, "Electrodeposition of Magneto-hard Alloys with Given Magnetic Characteristics" 2) M.P.Arutyunov, "Visualization of Magnetic Oscillograms by the Ferrographic Method" 3) V.P.Patrunov, "Ferrographic Recording of Facsimile Images" 4) I.I.Zhilevich, I.I. Gikis, B. Ye. Buchek, I.I. Kaynise, A.K.Kizhis, "Mock Experiments in Non-Pressure Ferromagnetic Printing". There was also an exhibition showing the work of the Electrographic Institute. The most important conclusion of the conference was that a solid approach had been made to the possibility of wide technical use of the methods of electrography. It was considered that although work in this field actually started only in 1955-56 it has covered as much ground as the USA in 10 years. While admitting that it was easier to reproduce results already achieved than to be the first to arrive at them, the conference observed that the Americans took good care that no important information appeared in the literature available.

Card 10/10

FEDOTOV, O.F.

Metal saving in the case hardening of workpieces. Inform.tekh.sbor. no.1:22-24 '54. (MLRA 9:7)

1.Kolomenskiy parovozostroitel'nyy zavod.
(Cementation (Metallurgy))

L 13375-63 BDS/EWT(m) AFFTC/ASD

ACCESSION NR: AP3002717 S/0120/63/000/003/0040/0046

AUTHOR: Moiseyev, B. N.; Lyulevich, V. I.; Fedotov, O. P.

TITLE: Follow-up system of the outfit designed for measuring track-photograph coordinates

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1963, 40-48

TOPIC TAGS: follower, nuclear measurement, bubbling chamber, track photograph

ABSTRACT: A projection-device follower is described of an automatic outfit intended for measuring bubbling-chamber photographs. Two versions of the follower were developed and tested: (1) a tv-type follower with a ring scanning in the camera tube and (2) an opaque radial-slit disk driven by a synchronous motor and exciting a photomultiplier tube. Pictorial diagrams and simplified connection diagrams describe details of both versions. Operating at a basic frequency of 400 cps with a superimposed frequency of 200 kc, the tv scanner is equivalent to a high-speed radial light-admitting slot. Methods of isolating the angle and the linear errors in the track following are discussed; the follow-up error is ± 2.5 microns at 1 mm/sec feed rate or better. Experimental characteristics of the

Card 1/2

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ACCESSION NR: AP3002717

follower are presented: with a 18-mm-diameter disk, the minimum radius of curvature of the enlarged track image is 25 mm; the linear-error-channel sensitivity is 750 rpm per 1 micron of error (with 15% overcontrol); the angular-error-channel sensitivity is 3,000 rpm per 1° of error (no overcontrol). Orig. art. has: 6 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute of the Theoretical and Experimental Physics)

SUBMITTED: 23Jun62 DATE ACQ: 12Jul63 ENCL: 00

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Card 2/2

KULIKOV, M.I.; FEDOTOV, O.V.

Studying the electric driving of the P-105 make pneumatic loom. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.4:122-125 '63. (MIRA 16:11)

1. Moskovskiy tekstil'nyy institut.

FEDOTOV, O.V., starshiy prepodavatel'; KULIK, M.I., dotsent, kand. tekhn. nauk

Advantages of the use of four-pole electric motors for loom driving. Tekst. prom. 25 no.8:74-76 Ag '65. (MIRA 18:9)

1. Moskovskiy tekstil'nyy institut.

LOSEV, I.P.; FEDOTOV, O.Ya.; ZAKOSHCHIKOV, S.A.

Reactions of 4,4'-diamino-3,3'-dimethylphenylmethane with lower lower dicarboxylic acids and some of their neutral esters. Izv. vys.ucheb.zav.; khim. i khim.tekh. 1 no.5:58-60 '58. (MIRA 12:2)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva, kafedra tekhnologii vysokomolekulyarnykh soyedineniy.

(Methane) (Acids, Organic)

LOSEV, I.P.; FEDOTOVA, O.Ya.; ASKAROV, M.A.; SEDOV, L.N.

Synthesis and study of mixed polyamides from aromatic diamines and adipic acid. Nauch.dokl.vys.shkoly; khim.i khim.tekh. no.1:159-161 '59. (MIRA 12:5)

1. Predstavlena kafedroy tekhnologii vysokomolekulyarnykh soyedineniy Moskovskogo khimiko-tekhnologicheskogo instituta im. D.I. Mendeleyeva.
(Amides) (Adipic acid) (Methane)

KLOTS, P., inzh. (Perm'); FEDOTOV, P., deputat gorodskogo Soveta (Rybinsk, Yaroslavskoy obl.); DANILINA, K.; CHERNOV, M.

Accounts of progressive practices in house committees. Zhil.-kom.-khoz. 12 no.7:10-11 Jl '62. (MIRA 16:5)

1. Zaveduyushchaya detskim sektorom obshchestvennogo domovogo komiteta domoupravleniya No.2, g. Artemovsk, Donetskoy obl. (for Danilina). 2. Glavnyy inzh. zhilishchno-ekspluatatsionnoy kontory No.17 Leningradskogo rayona Moskvy (for Chernov). (Apartment houses)

FEDOTOV P. A.

USSR/Farm Animals - Horses. Q-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30924

Author : Fedotov P.A.
Inst : -
Title : Results of the Improvement of the Buryat Horse by the Trotter Stallion.
(Rezul'taty uluchsheniya buryatskoy loshadi rysakom).

Orig Pub : Tr. Alma-Atinsk. zoovet. in-ta, 1956, 9, 97-103.

Abstract : In order to study the results of crossing Buryat horses with the Trotter breeds, 600 heads of the Buryat breed and 1,100 heads of the Buryat-Trotter cross-breeds of different generations were measured and described. The improved horse is 141.6 cm. tall and has a lengthened (size index 103.6) and massive (body-width index 120.0) body, and a well-developed bony framework (boniness index 13.0). In the tests for high speed, the Trotter crossbreeds covered a distance of 2,000 m., at a pace

Card 1/2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30924

in 16 min. 41 sec., and at a trot in 5 min. 55 sec. The horses of the Buryat breed covered the same distance in 19 min. 26 sec. and in 10 min. 42 sec., respectively. It is recommended to cross the Buryat horses with the Trotter breeds and to raise the crossbreeds of the first and second generations under improved conditions of feeding and management.

FEDOTOV, P. A

USSR/Farm Animals. Horses

Q-2

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49955

Author : Fedotov P.A.
Inst : Alma-Ata Zoological Institute of Veterinary Sciences, Kafedry konevodstva
Title : Cross-Breeding of Don and Buryat Horses

Orig Pub : Tr. Alma-Atinsk. zoovet. in-ta, 1956, 9, 104-108

Abstract : Cross-breeding of Buryat horses with Don stallions resulted in Don-Buryat hybrids of the 1st generation. These hybrids were 11.1 cm taller, 9.3 cm longer, had a 10.5 cm wider chest and a 2.0 cm larger (in circumference metacarpus than Buryat horses. The trotting speed of the 1st generation Don-Buryat hybrids was 3 min 14sec per 1 kg; when they were pulling a load their speed was 7.2 kg/hour. The respective speeds of Buryat horses were 5 min 21 sec and 6.15 kg/hour. L.M. Dvinskaya

Card : 1/1

8

Q

USSR/Farm Animals - Horses

Abs Jour : Ref Zhur - Biol, No 15, 1958, 69250

Author : Fedotov, P.A.

Inst : Alma-Ata Zooveterinary Institute - Kafedry konevodstva

Title : Result of the Improvement of the Kazakh Horse by the Trotter Horse in the Kolkhoz "Luch Vostoka" [Ray of the East] of the Alma-Atinskaya Oblast'

Orig Pub : Tr. Alma-Atinsk. zoovet. in-ta, 1957, 10, 72-80

Abstract : In hybrids of the first generation obtained from crossing the local Kazakh horse with the Orel Trotter, the average height was 5.9%, transverse length of the body 5.6%, chest circumference 5.5% and circumference of the metacorpus 1.6% greater than in the local Kazakh horse. Most desirable for agricultural work are hybrids of the second and third generations. In combined tests, the

Card 1/2

- 12 -

FEDOTOV, P. A., inzh.

For extensive knowledge in the fields of welding and soldering. Svar. proizv. no.10:43 O '62. (MIRA 15:10)

(Welding)

DUBROV, Ya.G., prof.; BUACHIDZE, O.Sh., kand. med. nauk; FEDOTOV, P.D.

Osteoblastoclastoma (giant-cell tumor). Khirurgiia 40 no.2: 113-121 F '64. (MIRA 17:7)

1. Ortopedo-travmatologicheskoye otdeleniye (zav. - prof. Ya.G. Dubrov) i rentgeno-radiologicheskiy otdel (zav. - prof. V.I. Petrov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. Vladimirskogo.

FEDOTOV, P.D.

Changes in the rectosigmoid part of the large intestine in tumors and inflammatory diseases of the true pelvis. Vop. klin. pat. no.2:91-102 '61 (MIRA 16:12)

1. Iz rentgenologicheskogo otdela (zav. - starshiy nauchnyy sotrudnik V.I.Petrov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni Vladimirskogo.

FEDOTOV, P.D.

Clinical and roentgenological characteristics of tumors of the abdominal cavity. Vop. klin. pat. no.2:201-209 '61 (MIRA 16:12)

1. Iz rentgeno-radiologicheskogo otdela (zav. - starshiy nauchnyy sotrudnik V.I.Petrov) Moskovskogo oblastnogo nauchno issledovatel'skogo klinicheskogo instituta imeni Vladimirskogo.